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NEWS 4 OCT 30 CHEMLIST enhanced with new search and display field
NEWS 5 NOV 03 JAPIO enhanced with IPC 8 features and functionality
NEWS 6 NOV 10 CA/CAPLUS F-Term thesaurus enhanced
NEWS 7 NOV 10 STN Express with Discover! free maintenance release Version 8.01c now available
NEWS 8 NOV 20 CA/CAPLUS to MARPAT accession number crossover limit increased to 50,000
NEWS 9 DEC 01 CAS REGISTRY updated with new ambiguity codes
NEWS 10 DEC 11 CAS REGISTRY chemical nomenclature enhanced
NEWS 11 DEC 14 WPIDS/WPINDEX/WPIX manual codes updated
NEWS 12 DEC 14 GBFULL and FRFULL enhanced with IPC 8 features and functionality
NEWS 13 DEC 18 CA/CAPLUS pre-1967 chemical substance index entries enhanced with preparation role
NEWS 14 DEC 18 CA/CAPLUS patent kind codes updated
NEWS 15 DEC 18 MARPAT to CA/CAPLUS accession number crossover limit increased to 50,000
NEWS 16 DEC 18 MEDLINE updated in preparation for 2007 reload
NEWS 17 DEC 27 CA/CAPLUS enhanced with more pre-1907 records
NEWS 18 JAN 08 CHEMLIST enhanced with New Zealand Inventory of Chemicals
NEWS 19 JAN 16 CA/CAPLUS Company Name Thesaurus enhanced and reloaded
NEWS 20 JAN 16 IPC version 2007.01 thesaurus available on STN
NEWS 21 JAN 16 WPIDS/WPINDEX/WPIX enhanced with IPC 8 reclassification data
NEWS 22 JAN 22 CA/CAPLUS updated with revised CAS roles
NEWS 23 JAN 22 CA/CAPLUS enhanced with patent applications from India
NEWS 24 JAN 29 PHAR reloaded with new search and display fields
NEWS 25 JAN 29 CAS Registry Number crossover limit increased to 300,000 in multiple databases

NEWS EXPRESS NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.

| | |
|------------|---|
| NEWS HOURS | STN Operating Hours Plus Help Desk Availability |
| NEWS LOGIN | Welcome Banner and News Items |
| NEWS IPC8 | For general information regarding STN implementation of IPC 8 |
| NEWS X25 | X.25 communication option no longer available |

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STRUCTURE FILE UPDATES: 7 FEB 2007 HIGHEST RN 919834-45-0
DICTIONARY FILE UPDATES: 7 FEB 2007 HIGHEST RN 919834-45-0

New CAS Information Use Policies; enter HELP USAGE TERMS for details.

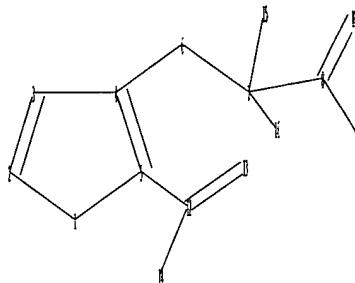
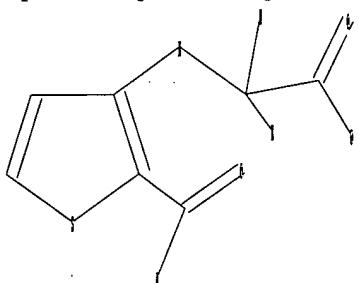
TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

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REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=>
Uploading C:\Program Files\Stnexp\Queries\10528612Intermed.str



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chain nodes :  
6 7 8 9 10 12 13 14 15 16  
ring nodes :  
1 2 3 4 5  
chain bonds :  
4-6 5-12 6-7 7-8 7-15 7-16 8-9 8-10 12-13 12-14  
ring bonds :  
1-2 1-5 2-3 3-4 4-5  
exact/norm bonds :  
4-6 6-7 8-9 8-10 12-13  
exact bonds :
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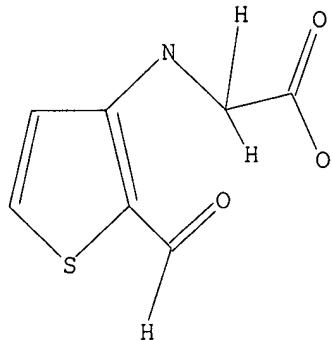
1-2 1-5 2-3 3-4 4-5 5-12 7-8 7-15 7-16 12-14
isolated ring systems :
containing 1 :

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:CLASS 9:CLASS 10:CLASS
12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS

L1 STRUCTURE UPLOADED

=> d 11
L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=>
Uploading C:\Program Files\Stnexp\Queries\10528612finalProd.str



chain nodes :
9 10 11 13
ring nodes :
1 2 3 4 5 6 7 8
chain bonds :
7-9 8-13 9-10 9-11
ring bonds :
1-2 1-5 2-3 3-4 4-5 4-6 5-8 6-7 7-8
exact/norm bonds :
1-2 1-5 2-3 3-4 4-5 4-6 5-8 6-7 7-8 9-10 9-11
exact bonds :
7-9 8-13
isolated ring systems :
containing 1 :

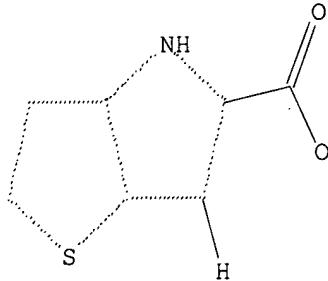
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Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:CLASS 10:CLASS
11:CLASS 13:CLASS

L2 STRUCTURE UPLOADED

=> d 12
L2 HAS NO ANSWERS

L2 STR



Structure attributes must be viewed using STN Express query preparation.

=> s 12
SAMPLE SEARCH INITIATED 08:30:44 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 101 TO ITERATE

100.0% PROCESSED 101 ITERATIONS 6 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 1418 TO 2622
PROJECTED ANSWERS: 6 TO 266

L3 6 SEA SSS SAM L2

=> s 12 full
FULL SEARCH INITIATED 08:30:51 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 2342 TO ITERATE

100.0% PROCESSED 2342 ITERATIONS 76 ANSWERS
SEARCH TIME: 00.00.01

L4 76 SEA SSS FUL L2

=> s 11
SAMPLE SEARCH INITIATED 08:30:59 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 17 TO ITERATE

100.0% PROCESSED 17 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 93 TO 587
PROJECTED ANSWERS: 0 TO 0

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L5 O SEA SSS SAM L1

=> s 11 full
FULL SEARCH INITIATED 08:31:03 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 504 TO ITERATE

100.0% PROCESSED 504 ITERATIONS
SEARCH TIME: 00.00.01

3 ANSWERS

L6 3 SEA SSS FUL L1

=> fil hcaplus
COST IN U.S. DOLLARS SINCE FILE TOTAL
FULL ESTIMATED COST ENTRY SESSION
344.20 344.62

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FILE COVERS 1907 - 8 Feb 2007 VOL 146 ISS 7
FILE LAST UPDATED: 7 Feb 2007 (20070207/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

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(FILE 'HOME' ENTERED AT 08:28:51 ON 08 FEB 2007)

FILE 'REGISTRY' ENTERED AT 08:29:43 ON 08 FEB 2007
L1 STRUCTURE UPLOADED
L2 STRUCTURE UPLOADED
L3 6 S L2
L4 76 S L2 FULL
L5 0 S L1
L6 3 S L1 FULL

FILE 'HCAPLUS' ENTERED AT 08:31:09 ON 08 FEB 2007

=> s 14
L7 54 L4

=> s 16
L8 3 L6

=> s 14 and 16
54 L4
3 L6

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L9 3 L4 AND L6

=> d ed ibib abs hitstr 1-3

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L9 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 27 Sep 2006
ACCESSION NUMBER: 2006:1001125 HCAPLUS
DOCUMENT NUMBER: 146:215TITLE: Novel thiopyrrole glycogen phosphorylase / *Andi. Wark*
inhibitors:AUTHOR(S): synthesis, in vitro SAs and crystallographic studies
Whittamore, Paul R. O.; Addie, Matthew S.; Bennett,
Stuart N. L.; Birch, Alan M.; Butters, Michael;
Godfrey, Linda; Kenny, Peter W.; Morley, Andrew D.;
Murray, Paul M.; Oikonomakos, Nikos G.; Otterbein,
Ludovic R.; Pannier, Andrew D.; Parker, Jeremy S.;
Readman, Kristy; Siedlecki, Pawel S.; Schofield,Paul; Stocker, Andy; Taylor, Melvyn J.; Townsend, Linda A.;
Whalley, David P.; Whitehouse, JenniferCORPORATE SOURCE: AstraZeneca, Cheshire, SK10 4TG, UK
SOURCE: Bioorganic & Medicinal Chemistry Letters (2006),
16(21), 5567-5571PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

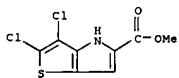
AB Two series of novel thiopyrrole inhibitors of recombinant human liver glycogen phosphorylase a (GPa) which are effective in reducing glucose output from rat hepatocytes are described. Representative compds. have been shown to bind at the dimer interface site of the rabbit muscle enzyme.

by X-ray crystallogr.

IT 403860-09-3P 403860-11-7P 679794-57-1P

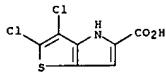
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(thiopyrroles as glycogen phosphorylase inhibitors)

RN 403860-09-3 HCAPLUS

CN 4H-Thieno[3,2-b]pyrrole-5-carboxylic acid, 2,3-dichloro-, methyl ester
(9CI) (CA INDEX NAME)

RN 403860-11-7 HCAPLUS

CN 4H-Thieno[3,2-b]pyrrole-5-carboxylic acid, 2,3-dichloro- (9CI) (CA INDEX NAME)



L9 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 15 Apr 2004
ACCESSION NUMBER: 2004:308441 HCAPLUS

DOCUMENT NUMBER: 140:339190

TITLE: Process for the preparation of thieno[3,2-b]pyrrole derivatives

INVENTOR(S): Butters, Michael; Schofield, Paul; Stocker, Andrew

PATENT ASSIGNEE(S): Astrazeneca AB, Swed.; Astrazeneca UK Limited

SOURCE: PCT Int. Appl., 35 pp.

CODEN: PIXKD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

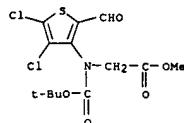
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|------------|
| WO 2004031193 | A1 | 20040415 | WO 2003-GB4211 | 20030929 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG | | | | |
| CA 2498843 | A1 | 20040415 | CA 2003-2498843 | 20030929 |
| AU 2003267656 | A1 | 20040423 | AU 2003-267656 | 20030929 |
| EP 1549653 | A1 | 20050706 | EP 2003-748348 | 20030929 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK | | | | |
| BR 2003014312 | A | 20050726 | BR 2003-14312 | 20030929 |
| CN 1688588 | A | 20051026 | CN 2003-823736 | 20030929 |
| JP 20060503077 | T | 20060126 | JP 2004-540938 | 20030929 |
| NO 2005001047 | A | 20050428 | NO 2005-1047 | 20050225 |
| US 2005272938 | A1 | 20051208 | US 2005-528612 | 20050321 |
| PRIORITY APPLN. INFO.: | | | | |
| | | | WO 2002-22909 | A 20021003 |
| | | | WO 2003-GB4211 | W 20030929 |

OTHER SOURCE(S): MARPAT 140:339190
GI

L9 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

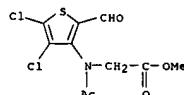
RN 679794-57-1 HCAPLUS

CN Glycine, N-(4,5-dichloro-2-formyl-3-thienyl)-N-(1,1-dimethylethoxy)carbonyl-, methyl ester (9CI) (CA INDEX NAME)



RN 679794-58-2 HCAPLUS

CN Glycine, N-acetyl-N-(4,5-dichloro-2-formyl-3-thienyl)-, methyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS FORMAT RECORD. ALL CITATIONS AVAILABLE IN THE RE

L9 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



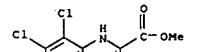
AB A safer process for preparing a compound of formula I (R4, R5 = independently H, halo, nitro, fluoromethyl, etc.; R6 = H or a protecting group), which comprises cyclization of a compound of formula II (R7 = a nitrogen Protecting group) and removing the group R7 or any protecting group R6, is disclosed. For example, chlorination of thiophene-3-carboxylic aldehyde (78%) and oxidation, gave 4,5-dichlorothiophene-3-carboxylic acid. Curtius rearrangement of the acid using diphenylphosphorylazide in the presence of tert-butanol (78%), followed by formylation (63%), afforded tert-Bu (4,5-dichloro-2-formyl-3-thienyl)carbamate. Substitution of the carbamate with Me bromoacetate and hydrolysis by acetic acid, provided Me N-acetyl-N-(4,5-dichloro-2-formyl-3-thienyl)glycinate, II (R4 = R5 = Cl, R6 = Me, R7 = COMe). Cyclization of II (45%), followed by hydrolysis (100%), gave the final compound 2,3-dichloro-4H-thieno[3,2-b]pyrrole-5-carboxylic acid, I (R4 = R5 = Cl, R6 = Me). The use of these novel intermediates in the formation of pharmaceutical compds. III (R4, R5 = as defined above; R14 = H; R15 = H, halo, cyano, mercapto, etc.; R16 = H, alkyl; R17 = H, halo, amino, hydroxy, carbamoyl, etc.) is also claimed.

IT 403860-09-3P 679794-57-1P 679794-58-2P

RL: IMP (Industrial manufacture); RCT (Reactant); SPN (Synthetic Preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation of thieno[3,2-b]pyrrole carboxylic acid via cyclization of (formylthienyl)glycinate derivative)

RN 403860-09-3 HCAPLUS

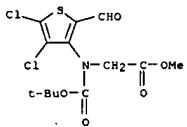
CN 4H-Thieno[3,2-b]pyrrole-5-carboxylic acid, 2,3-dichloro-, methyl ester (9CI) (CA INDEX NAME)



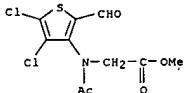
RN 679794-57-1 HCAPLUS

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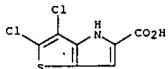
L9 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)
CN Glycine, N-(4,5-dichloro-2-formyl-3-thienyl)-, methyl ester (9CI) (CA INDEX NAME)



RN 679794-58-2 HCAPLUS
CN Glycine, N-acetyl-N-(4,5-dichloro-2-formyl-3-thienyl)-, methyl ester (9CI) (CA INDEX NAME)

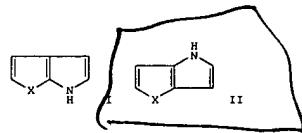


IT 403860-11-7P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(preparation of thieno[3,2-b]pyrrole carboxylic acid via cyclization
of (formylthienyl)glycinates derivative)
RN 403860-11-7 HCAPLUS
CN 4H-Thieno[3,2-b]pyrrole-5-carboxylic acid, 2,3-dichloro- (9CI) (CA INDEX NAME)

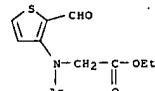


REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2007 ACS on STN
ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1979:103864 HCAPLUS
DOCUMENT NUMBER: 90:103864
TITLE: Studies on heterocyclic series. XXIX. Routes to thieno-, selenolo-, furo-, and pyrrolopyrroles
AUTHOR(S): Soth, Samreth; Farnier, Michel; Paulmier, Claude
CORPORATE SOURCE: Lab. Polarcogr. Org., Fac. Sci. Gabriel, Dijon, Fr.
SOURCE: Canadian Journal of Chemistry (1978), 56(10), 1429-34
DOCUMENT TYPE: Journal
LANGUAGE: French
GI



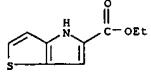
AB The reaction of EtO₂CCH₂N₃ with the monoaldehydes of furan, thiophene and selenophene followed by cyclization, hydrolysis, and decarboxylation gave the pyrrolo compds. I (X = O, S, Se) and II (X = O, S, Se). I (X = N) was prepared by this route using Et 4-formylpyrrole-2-carboxylate as the substrate. II (X = S, Se) were also obtained by the action of EtO₂CCH₂Br on 3-acetamidothiophene-2-aldehyde, or the corresponding seleno compound, followed by cyclization of the N-substituted acetamide products.
IT 67268-40-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and cyclization of)
RN 67268-40-0 HCAPLUS
CN Glycine, N-acetyl-N-(2-formyl-3-thienyl)-, ethyl ester (9CI) (CA INDEX NAME)



IT 39793-31-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and decarboxylation of)
RN 39793-31-2 HCAPLUS
CN 4H-Thieno[3,2-b]pyrrole-5-carboxylic acid (6CI, 7CI, 9CI) (CA INDEX NAME)

L9 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

IT 46193-76-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis of)
RN 46193-76-4 HCAPLUS
CN 4H-Thieno[3,2-b]pyrrole-5-carboxylic acid, ethyl ester (7CI, 9CI) (CA INDEX NAME)



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|--|------------------|---------------|
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| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
| FULL ESTIMATED COST | 23.61 | 368.23 |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION |
| CA SUBSCRIBER PRICE | -2.34 | -2.34 |

SESSION WILL BE HELD FOR 120 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 08:33:01 ON 08 FEB 2007